

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-025899**Date Inspected:** 08-Aug-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** John Pagliero**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

1. 11E 12E E (Exterior)
2. 10E PP88 E3 (Interior)
3. 11E 12E North side (Interior)
4. 11E 12E South Side (Interior)

1. 11E 12E E (Exterior)

The QA inspector randomly observed ABF welding operator Fred Kaddu ID#2188 performing Plasma Arc Cutting (PAC) utilizing a "Bug-O" motorized rail system with a magnetic base attached in the overhead position to remove the backing bar from the underside of side plate E, at 11E 12E of the OBG.

The QA Inspector observed the operator adjust the equipment in order to make consecutive passes to remove the backing bar and back gouge the weld.

The QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work appeared to be in general conformance with the contract documents.

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### 2. 10E PP88 E3 (Interior)

The QA inspector observed ABF welder Salvador Sandoval ID# 2202 performing Shielded Metal Arc Welding (SMAW) in the 4G overhead position on Lifting Lug Hole (LLH) #4 located at 10E PP88 E3. The QA inspector observed the QC inspector identified as Fred Von Hoff monitoring the progress to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-1110A Revision 1.

The parameters were recorded as (Amperes=133).

The QA inspector made subsequent observations throughout the shift to monitor quality and upon completion of the work the QA inspector observed QC perform Magnetic Particle Testing (MT) on the weld and found no indications which the QA inspector verified and found the work to be acceptable.

The QA inspector noted that the work appeared to be in general conformance with the contract documents.

### 3. 11E 12E North Side (Interior)

The QA inspector observed ABF welder Hua Qiang Hwang ID#2930 performing Shielded Metal Arc Welding (SMAW) in the 3G vertical position on Longitudinal Stiffener (LS)#4 located at 11E 12E in the interior of the OBG. The QA inspector noted the use of an electrode oven at the required temperature for the E9018-MH4-R electrodes. The QA inspector observed the QC inspector identified as Fred Von Hoff monitoring the progress to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-1012-3. The parameters were recorded as (Amperes=135).

Upon completion of the south face of the joint, the heat induction blankets were implemented on the completed weld and the welder commenced welding on the north face of the joint. The QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work was completed on this date and appeared to be in general conformance with the contract documents. (see photo below)

### 4. 11E 12E South Side (Interior)

The QA inspector observed ABF welder Xiao Jian Wan ID#9677 performing Shielded Metal Arc Welding (SMAW) in the 3G vertical position on Longitudinal Stiffener (LS)#3 located at 11E 12E in the interior of the OBG. The QA inspector noted the use of an electrode oven at the required temperature for the E9018-MH4-R electrodes. The QA inspector observed the QC inspector identified as Fred Von Hoff monitoring the progress to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-1012-3. The parameters were recorded as (Amperes=132).

Upon completion of the north face of the joint, the induction heat blankets were implemented on the completed weld and the welder commenced welding on the south face of the joint. The QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work was completed on this date and appeared to be in general conformance with the contract documents. (see photo below)

#### **Summary of Conversations:**

At the beginning the shift the QA inspector met with QC inspector John Pagliero and discussed the welders assignments and locations for the shift to include pending issues, ongoing work and required testing.

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### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

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**Inspected By:** Frey,Doug

Quality Assurance Inspector

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**Reviewed By:** Levell,Bill

QA Reviewer